

SAFETY AND HEALTH

[CT, FP – NR&D, FP – R&D, LH/T&M, A – E 04/08] [NFS 1852.223-70 – 04/02]

(This Article is applicable when one or more of the following conditions exist: (i) the work will be conducted completely or partly on premises owned or controlled by the Government, (ii) the work includes construction, alteration or repair of facilities in excess of \$ \$100,000, (iii) the work, regardless of place of performance, that involves hazards that could endanger the public, astronauts and pilots, the NASA workforce (including Subcontractor employees working on NASA Subcontracts) or high value equipment or property and the hazards are not adequately addressed by Occupational Safety and Health (OSHA) or Department of Transportation (DOT) regulations (if applicable) or (iv) when JPL determines that the assessed risk and consequences of a failure to properly manage and control the hazard(s) warrants use of the clause.)

- (a) The Subcontractor shall take all reasonable safety and occupational health measures in performing under this Subcontract and shall, to the extent set forth below, submit a safety plan and a health plan (applicable to the work to be performed under this Subcontract) for JPL's approval. The Subcontractor shall comply with all Federal, State, and local laws applicable to safety and occupational health in effect on the date of this Subcontract and with the safety and occupational health standards, specifications, reporting requirements, and provisions set forth below.
- (b) The Subcontractor shall take or cause to be taken any other safety and occupational health measures JPL may reasonably direct and as specified under JPL Form 2885. To the extent that the Subcontractor may be entitled to an equitable adjustment for those measures under the terms and conditions of this Subcontract, the equitable adjustment shall be determined pursuant to the procedures of the Article of this Subcontract entitled "Changes," provided, that no adjustment shall be made under this Safety and Health Article for any change for which an equitable adjustment is expressly provided under any other provision of the Subcontract.
- (c) Standards. The following safety and health standards, specifications, issuances, and reporting requirements are prescribed pursuant to paragraph (a).
 - (1) General Standards and Specifications: In addition to complying with all Federal, State, and local laws applicable to safety and occupational health in effect on the date of this Subcontract, the Subcontractor shall use NASA Procedures and Guidelines (NPGs) 8715. 3, NASA Safety Manual with Changes Through Change I 6/19/02, dated January 24, 2000, as a general policy guide to establish a safety program to be included in the safety and health plan to be submitted in accordance with paragraph (a) above.
 - (2) As part of the Subcontractor's safety and health plan, the Subcontractor shall furnish a list of all hazardous operations to be performed, including operations covered by measures indicated in paragraphs (a) and (b) of this Article and a list of other major or key operations required or planned in the performance of the Subcontract, even though not deemed hazardous by the Subcontractor. JPL and the Subcontractor shall jointly decide which operations are to be considered hazardous with JPL as the final authority. Before hazardous operations commence, the Subcontractor shall develop, review, and provide plans for the operation for JPL to review. The Subcontractor's review procedure shall submit for JPL concurrence:
 - (i) Written hazardous operating procedures for all hazardous operations; and/or
 - (ii) Qualification standards for personnel involved in hazardous operations.
 - (3) Flight Program/Project Safety: The Subcontractor shall include in each Program/Project Plan prepared for a flight project a description of the risk management process that addresses the safety needs and special safety monitoring required for the flight program/project. Project Plans containing such requirements will be referenced in the flight project task order issued by the Contracting Officer under the Prime Contract and the Subcontractor shall comply with those requirements.
 - (4) Nuclear Safety: Radioactive material will be handled in accordance with appropriate Federal, State, local and tribal regulations and requirements, to specifically include those of the State of California, Department of Energy and/or Nuclear Regulatory Commission. Launching of nuclear materials into space shall be done in accordance with National Security Council/Presidential Directive 25, as of May 8, 1996. Chapter 5, Nuclear safety, of NPG 8715.3, NASA Safety manual provides specific additional NASA requirements.
 - (5) Propulsion Safety: The Subcontractor shall comply with all applicable Federal, State, and local requirements applicable to propulsion safety, and the requirements shall be used to establish a propulsion safety program (if applicable) to be included in the safety and health plan to be submitted in accordance with paragraph (a) above.

- (6) Fire Safety: The Subcontractor shall comply with all applicable Federal, State, and Local requirements pertaining to Fire Protection and Life Safety. NASA STD 8719.11, NASA Safety Standard for Fire Protection and Life Safety, dated December 19, 2000, will be followed to ensure safety of NASA facilities.
- (7) Ammunition and Explosive Safety: The Subcontractor shall comply with all applicable Federal, State, and Local requirements applicable to ammunition and explosive safety. The requirements of NSS 1740.12 NASA Safety standard for explosives, propellants and Pyrotechnics, dated August 1993 shall be used to establish a propulsion safety program to be included in the safety and health plan to be submitted in accordance with paragraph (a) above.
- (8) Pressure Vessel and Pressure System Safety: The Subcontractor shall establish a pressure systems safety and recertification program in accordance with NPD 8710.5, NASA Safety Policy for Pressure vessels and Systems, dated March 17, 1998
- (9) Any additional safety and health standards, specifications, issuances and reporting requirements set forth in this Subcontract.
- (d) The safety and health plan to be submitted by the Subcontractor pursuant to paragraph (a) above shall implement the requirements of this Article and of the standards and specifications of paragraph (c) of this Article and shall describe the means to be employed by the Subcontractor to monitor and enforce said requirements. The plan shall include the Subcontractor's standards and criteria for imposing safety and health standards upon its Lower-tier Subcontractors and its plans and procedures for monitoring compliance with such standards. A safety and health plan for similar work performed by the Subcontractor on a Federal Subcontract may be submitted for review and approval under this Article.
- (e) The Subcontractor shall immediately notify and promptly report to JPL any accident, incident, or exposure resulting in fatality, lost-time occupational injury, occupational disease, contamination of property (or, if this Subcontract sets forth any acceptable threshold limits of contamination, any contamination of property beyond those stated limits) or property loss of \$25,000 or more, or Close Call (a situation or occurrence with no injury, no damage or only minor damage (less than \$ 1000) but possesses the potential; to cause any type mishap, or any injury, damage or negative mission impact) that may be of immediate interest to NASA, arising out of work performed under this Subcontract. The Subcontractor is not required to include in any report an expression of opinion as to the fault or negligence of any employee. Service Subcontractors (excluding construction Subcontracts) shall provide quarterly reports specifying lost-time frequency rate, number of lost-time injuries, exposure, and accident/incident dollar losses as specified in the Subcontract Schedule. The Subcontractor shall investigate all work-related incidents or accidents and Close Calls to the extent necessary to determine their causes and furnish the JPL a report, in such form as JPL may require, of the investigative findings and proposed or completed corrective actions. In addition, the Subcontractor shall comply with the illness, incident and injury experience reporting requirements set forth below or elsewhere in this Subcontract.
- (f) Illness, Incident, and Injury Experience Reports.
 - (1) Reports required by this Article or elsewhere in this Subcontract shall be furnished in three copies unless otherwise specified. Subcontractor shall refer to JPL Form 2885 for additional detail regarding reporting requirements.
 - (2) The following illness, incident, and injury experience reports are prescribed pursuant to paragraph (e) above:
 - (A) Experience Reports: The Subcontractor shall prepare and submit to JPL quarterly and semi-annual reports of occupational related illness, incidents, injury experience, worker's compensation costs; and Government property damage due to mishaps or natural phenomena in such detail as prescribed in formats approved by the JPL Subcontract Manager.
 - (B) Investigative Reports: The Subcontractor shall furnish reports of investigation of individual incidents or accidents or close calls in formats approved by JPL; provided, however, that the Subcontractor shall not be required to furnish personally identifiable information concerning Subcontractor or Lower-tier Subcontractor employees. Lessons learned from these reports, excluding those related to close calls unless the Subcontractor believes that material value may be derived from such reporting, shall be reported to JPL (for use by JPL as inputs into the NASA Lessons Learned Program).
 - (C) Mishap Reports: The Subcontractor shall furnish JPL mishap reports and respond to JPL requests for mishap reviews. The Subcontractor shall conduct its own mishap investigations consistent with NPD 8621.1H, NASA Mishap and Close-Call Reporting, Investigation, and Recordkeeping Policy, dated October 2, 2002, with the understanding that all references to NASA in that policy shall be interpreted to

mean the Subcontractor. The Subcontractor shall utilize the NPD 8621.1, dated June 2, 2000 procedures as guidelines. The Subcontractor shall also report to the JPL Subcontract Manager any incidents that may have visibility in the press, mission failures, or mission anomalies that will have high JPL or NASA visibility in the press.

- (D) The Subcontractor shall furnish such other reports as JPL determines to be related to the Subcontractor's safety and health program and its experiences thereunder.

(g)

- (1) JPL may notify the Subcontractor in writing of any noncompliance with this Article and specify corrective actions to be taken. The Subcontractor shall promptly take and report any necessary corrective action.
 - (2) When the JPL Subcontract Manager becomes aware of noncompliance that may pose a serious or imminent danger to safety and health of the public, astronauts and pilots, the NASA workforce (including Subcontractor employees working on NASA Subcontracts) or high value mission critical equipment or property, the JPL Subcontract Manager shall notify the Subcontractor orally, with written conformation. The Subcontractor shall promptly take and report any necessary corrective action. If the Subcontractor fails or refuses to institute prompt corrective action in accordance with subparagraph (g)(1) of this Article, JPL may invoke the stop work order Article of this Subcontract or any other remedy legally available to the Institute in the event of such failure or refusal.
- (h) The Subcontractor (or Lower-tier Subcontractor or supplier) shall cause the substance of this Article, including this paragraph (h) and any applicable provisions of this Subcontract, with any appropriate changes of designations of the parties, to be inserted in Lower-tier Subcontracts of every tier which involve work to which this Article is applicable as specified in the preamble above.
- (i) The Subcontractor agrees that authorized representatives of JPL or the Contracting Officer shall have access to and the right to examine the sites or areas where work under this Subcontract is being performed in order to determine the adequacy of the Subcontractor's safety and health measures under this Article.